

## Knowledge, Attitude and Practice on Antenatal Care among Woman: Study in a Tertiary Care Hospital, Dhaka, Bangladesh.

Ummul Khair Mahmuda<sup>1</sup>, Syeda Nazia Akhter<sup>2</sup>, FM Anamul Haque<sup>3</sup>,  
Suravi Halder<sup>4</sup>

<sup>1</sup>Assistant Professor, Department of Obstetrics & Gynaecology, Institute of Child and Mother Health (ICMH),  
Matuail, Dhaka, Bangladesh

<sup>2</sup>Professor (Gynaecologist), Institute of Child and Mother Health (ICMH), Matuail, Dhaka, Bangladesh.

<sup>3</sup>Associate Professor, Department of Obstetrics & Gynaecology, Institute of Child and Mother Health (ICMH),  
Matuail, Dhaka, Bangladesh

<sup>4</sup>Junior Consultant, Department of Obstetrics & Gynaecology, Institute of Child and Mother Health (ICMH),  
Matuail, Dhaka, Bangladesh

**Corresponding Author:** Dr. Ummul Khair Mahmuda

### Abstract:

**Introduction:** Small use of maternal health services intended for delivery has long been on the research outline. This is due to less knowledge, insufficient attitude and poor practice towards antenatal care (ANC). To improve maternal and newborn health involves establishment of remaining evidence-based involvements in ANC. The Government of Bangladesh had taken on some inventiveness to advance maternal health services such as application of community health clinic, protest to create awareness, claim side financing etc. Maternal health condition in rural areas are still in a poorest condition in Bangladesh even though access to health services has amplified over the decades. **Aim of the study:** the aim of the study is to assess the knowledge, attitude and practice on Antenatal care among women in Peri-urban area of Bangladesh. **Material & Methods:** This is a cross sectional study conducted in the Institute of Child and Mother Health, Matuail Dhaka, Bangladesh during the period from November 2016 to February 2018. A total number of 174 ever-married reproductive aged women in third trimester were selected for this study. In this study the method of direct interview was used for data collection. Attention was given to record factual and true statement made by the respondents. The fieldwork was commenced on from 1<sup>st</sup> November 2016 and was completed 10<sup>th</sup> February 2018. We adopted probability sampling techniques for this study and data analysis done by stata-16. **Results:** In our study, a total number of 174 ever-married reproductive aged women in third trimester were selected. 14.36% women were illiterate, 20.11% women were educated up to primary school, followed by 58.62% studied up to secondary level and only 6.91% were higher educated. Of the total participants, 63.79% women were unemployed and were housewives, and 36.21% were working. Out of 174 study participants 106 (60.91%) study subjects had adequate knowledge about overall ANC care. 95.96% women scored more than 70% marks with mean of 87.98% and standard deviation 6.98 meaning they have an adequate attitude toward ANC care. 67.82% study subjects followed adequate ANC practices [Table I]. Tables II and III shows the association of knowledge and practices regarding ANC with socio-demographic factors. There was significant association found between age and overall knowledge about ANC. ( $P = 0.007$  and odds ratio [OR] = 2.39 and 95% confidence interval [CI] includes 1). **Conclusion:** A large proportion of women in peri-urban area of Bangladesh has inadequate knowledge, have poorly practice and insufficient attitude towards ANC care.

**Key Words:** Antenatal Care, Maternal Health, Ever-Married, Education, Suburban Area.

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### I. Introduction

Small use of maternal health services intended for delivery has long been on the research outline. This is due to less knowledge, insufficient attitude and poor practice towards antenatal care (ANC). To improve maternal and newborn health involves establishment of remaining evidence-based involvements in ANC. Being a long distance from health services, multiple demands for women's time, high costs, low coverage and poor quality of care have been recognized as main reasons.<sup>1,2</sup> Furthermore, gender discrimination and low levels of female education stop women from seeking care, and get into the best choices for themselves and their children's health, resulting in serious delays and pointless complications and deaths.<sup>3,4</sup> In consort with these factors, the comparative contribution of ANC to maternal health has been argued.<sup>5,6</sup> Universally, growing attention given to maternal health has been focused in tumbling maternal mortality. The tragedy of not stopping

these preventable or curable deaths resulted in 536,000 maternal deaths worldwide in 2005<sup>7</sup>. In developed countries, 97% of women make at least one antenatal visit; 99% deliver with a skilled attendant; and 90% make at least one postnatal visit.<sup>8</sup> In developing countries exposure of at least one ANC visit is comparatively high at 69% in Sub-Saharan Africa, associated to 54% in Asia.<sup>9</sup> Rendering to Demographic and Health Survey data from 23 African countries, 2/3 of women in Sub-Saharan Africa give birth at home, nevertheless 13% of all women receive a postnatal visit within two days.<sup>10</sup> In every minute of each year a woman passes away from complications of pregnancy, abortion attempts and childbirth<sup>11</sup>. Millions more women subsist but suffer from illness and disability associated to pregnancy. Inabilities of decision-making power of women within the family and inequities in the facility of vital maternal health care interventions remain a challenge in many sub-Saharan African countries till now.<sup>3,12</sup> Even though appearance at ANC is inspiring, upsetting gaps exist in provision, and coverage information are generally built on women who have only one ANC visit, however four visits are suggested, and ANC quality varies.<sup>13,14,15</sup> Much less is known about the utilization of PNC, the standing of which has recently been emphasized.<sup>13</sup> The Government of Bangladesh had taken on some inventiveness to advance maternal health services such as application of community health clinic, protest to create awareness, claim side financing etc. Maternal health condition in rural areas are still in a poorest condition in Bangladesh even though access to health services has amplified over the decades. Therefore, we conducted this study to assess the knowledge, attitude and practice on Antenatal Care among women in suburban area of Bangladesh.

## **II. Objectives**

### **a) General objective:**

- To assess the knowledge, attitude and practice on Antenatal Care among women in semi-urban are in Bangladesh.

### **b) Specific Objectives:**

- To observe the socio-economic, demographic and health related factors associated with Antenatal Care in semi-urban are in Bangladesh.

## **III. Methodology and Materials**

This is a cross sectional study conducted in the Institute of Child and Mother Health (ICMH), Matuail, Dhaka, Bangladesh during the period from November 2016 to February 2018. A total number of 174 ever-married reproductive aged women with at least one child were selected for this study. In this study the method of direct interview was used for data collection. Attention was given to record factual and true statement made by the respondents. The fieldwork was commenced on from 1<sup>st</sup> November 2016 and was completed 10<sup>th</sup> February 2018. The minimum sample size was estimated to be 174. The data were collected by interviewing all the eligible subjects willing to participate in the study. Study subjects were selected by non-probability sampling technique and data analysis was done by stata-16. Knowledge was assessed about ANC visits, tetanus immunization, investigations, and nutritional factors, danger signs of pregnancy, contraception, and personal habits; variables to assess attitude were a judgment on the place of delivery, the effect of smoking on mother and fetus and effects of alcohol on the health of mother and fetus, dietary changes, and iron and folic acid (IFA) intake and its regularity in the intake. Also, questions were asked to assess the practices with regards to ANC visit, dietary changes made during pregnancy, IFA tablets taken. Questions related to smoking, alcohol, self-medication were noted. Tetanus immunization during pregnancy was also noted. Each parameter was awarded 1 mark for the correct answer and 0 mark if the answer was wrong. Thus, total marks for questions related to knowledge were 17, total marks for questions related to attitude 12 and total marks for questions related to practice were 12. Those who scored 70% and above were considered as having adequate knowledge, and those who scored below 70% were considered inadequate knowledge.

### **Inclusion Criteria**

- Women ever-married in third trimester
- Women of reproductive aged group
- Women visited at ICMH.

### **Exclusion Criteria**

- Women who are not in the reproductive aged group
- Severely ill women

## **IV. Results**

In our study, a total number of 174 ever-married reproductive aged women with at least one child were selected. 14.36% women were illiterate, 20.11% women were educated up to primary school, followed by 58.62% studied up to secondary level and only 6.91% were higher educated. Of the total participants, 63.79%

women were unemployed and were working as housewives, and only 36.21% were working. 17.24% of study participants belonged to lower class, 82.76% in the middle and upper class group. Out of 174 study participants 106 (60.91%) study subjects had adequate knowledge about overall ANC care. 95.96% women scored more than 70% marks with mean of 87.98% and standard deviation 6.98 meaning they have an adequate attitude toward ANC care. 67.82% study subjects followed adequate ANC practices [Table I]. Tables II and III shows the association of knowledge and practices regarding ANC with socio-demographic factors. There was significant association found between age and overall knowledge about ANC. (P = 0.007 and odds ratio [OR] =2.39 and 95% confidence interval [CI] includes 1). Even though both groups were having knowledge about ANC care but it was associated more closely with those women who were more educated (more than secondary level) (Chisquare test, P = 0.000 and OR 5.80). Although the adequate knowledge women were distributed among both employed and unemployed women, but it was more associated with employed women. It means that working women were more knowledgeable than unemployed women (Chi-square, P = 0.005 and OR 3.71). Also, there was highly significant relation observed between SES and overall knowledge about ANC (Chi-square, P = 0.000 and OR 3.60). Similar trends were noted between SES and practices regarding ANC. Table IV shows the attitude towards antenatal care among the study participants. Questions were asked to assess the practices with regards to ANC visit, dietary changes made during pregnancy, IFA tablets taken and the answers of the participants are shown in Table IV. Table V shows association between level of knowledge, attitude and practice. There was a significant association between knowledge of ANC and practice. Those who had adequate knowledge about ANC care they had adopted good practice (P value= 0.01).

Figure I: Educational Status of Respondents (n=300)

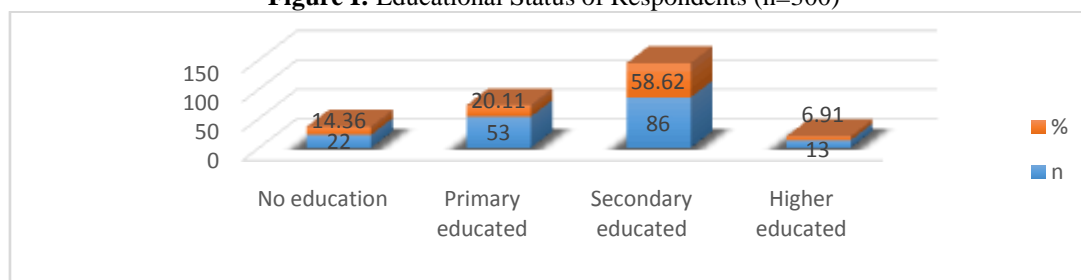


Table I: Score based on knowledge attitude and practices regarding ANC among study subjects. (n=174)

Variables	Knowledge	Attitude	Practice
Adequate	106 (60.91%)	167 (95.96%)	118 (67.82%)
Inadequate	68 (39.09%)	7 (4.04%)	56 (32.18%)
Total	174 (100%)	174 (100%)	174 (100%)
Mean score	71.21%	87.98%	73.32
95% CI	67.95-71.23	87.91-89.33%	72.46-74.17
SD	15.86	6.98	9.01

Table II: Association of overall knowledge regarding ANC with sociodemographic factors. (n=174)

Socio-demographic variables			Knowledge		X <sup>2</sup> df P	OR	95% CI	
Factor	Category	n	Adequate	Inadequate			Lower	Upper
Age (years)	≤20	68	27	41	0.007	2.39	1.36	4.19
	>20	106	65	41	8.981			
Education	≤secondary level	162	69	93	0.000	5.80	0.3.59	9.39
	>secondary level	12	10	2	56.309			
Occupation	Working	63	52	11	9.100	3.71	1.50	9.18
	Non-working	111	62	49	0.005			
SES	Middle & upper	144	103	41	37.002	3.60	2.35	5.51
	Lower	30	12	18	0.000			

Table III: Association of overall practice regarding ANC with socio-demographic factors. (n=174)

Socio-demographic variables			Practice		X <sup>2</sup> df P	OR	95% CI	
Factor	Category	n	Adequate	Inadequate			Lower	Upper
Age (years)	<20	68	40	28	0.102	1.63	0.92	2.86

	>20	106	75	31	3.001			
<b>Education</b>	<secondary level	162	101	61	0.000	2.28	1.42	3.65
	>secondary level	12	9	3	12.020			
<b>Occupation</b>	Working	63	48	15	1.002	1.49	0.65	3.4
	Non-working	111	76	35	0.339			
<b>SES</b>	Middle & upper	144	112	32	15.998	2.47	1.58	3.85
	Lower	30	18	12	0.001			

**Table IV:** Attitude towards antenatal care among the study participants. (n=174)

Serial no.	Statements	No. of subject with specific responses (%)		
		Strongly disagree and disagree	Neutral	Strongly agree and agree
1	Antenatal check-up is necessary for women after becoming pregnant	8(4.6)	11(06.32)	155(89.08)
2	Antenatal follow up is good to monitor mother's and fetus's health	5(2.89)	8(4.59)	161(92.52)
3	Antenatal booking should be done before the 3 <sup>rd</sup> month of pregnancy	10(5.76)	69(39.65)	95(54.59)
4	Screening of blood for infections (HIV, HBV etc.) should be carried out during antenatal check-up	21(12.00)	55(31.60)	98(56.32)
5	Blood pressure should be checked regularly during pregnancy	36(20.70)	11(6.32)	127(72.98)
6	Pregnant women should undergo USG as advised by doctor to monitor fetal growth	32(17.80)	56(32.18)	86(49.42)
7	Pregnant women should change dietary habit as advised by doctor	7(04.03)	11(6.32)	156(89.65)
8	Supplementation of iron and folic acid are good for the mother and fetus	09(00.00)	7(04.03)	167(95.97)
9	Skipping iron and folic acid tablets does not cause any harm to themother	76(43.68)	85(48.85)	13(7.47)
10	Home delivery is better than hospital delivery	69(39.65)	22(12.64)	83(47.70)
11	Smoking does not cause any harm to the fetus	145(83.33)	29(16.67)	0(00.00)
12	Alcohol consumption during pregnancy is good for fetus	159(91.38)	15(8.62)	0(00.00)

**Table V:** Association between knowledge, attitude and practice about ANC care.

Knowledge	Practice		P	X <sup>2</sup>	df	95% CI	OR
	Adequate	Inadequate					
Adequate	79	27	0.01	-	-1	-3.6-9.2	-
Inadequate	31	37					

## V. Discussion

This study is an attempt to investigate the knowledge, attitude and practice on Antenatal care among women in peri-urban area in Bangladesh. The data were collected from a peri-urban area named Matuail in Dhaka. A total of 174 data have collected for this study through personal interview. Our study showed that statistically significant association between age and knowledge about ANC but not with overall ANC practices. A study done by Sanjel et al., 2011 in Tamang also shows a significant association between age and knowledge.<sup>16</sup> In a study Sanjel et al. shows the significant association between numbers of pregnancy and ANC visits during most recent pregnancy at 95% level of confidence ( $P < 0.05$ ) whereas no such association was found in our study. Agarwal et al. in their study in 2007 found that ANC conventional was significantly lower among illiterate women. This finding is similar with our finding in which women who were more educated were better aware about almost all the factors of ANC. Though, women with lower education (<10th) were performing better in term of visits and women with higher education (>10th) were doing better practice with regards to nutrition and other factors. Overall educated women were practicing in a better way than non-educated women (OR 5.80).<sup>17</sup> Our study findings were comparable with a study done by Al-Shammari et al. in 1994 which found that educated mothers and mothers aged <20 years had more prenatal visits which was similar to our study findings.<sup>18</sup> Similarly, working women were better aware about almost all the factors of ANC. But it was not uniform with regard to practice. Nonworking women were doing better practice with regards to antenatal visits, rest, etc., whereas working women were practicing in a better way than nonworking women

with regards to nutritional aspects. However, overall there was no significant association found between education and practice ( $P = 0.339$ , OR 1.49 (0.65-3.4)). We also found a significant association between Socio-economic status and awareness about almost all the factors of ANC. With regard to practice; women from high socioeconomic class were doing better practice with regards to nutrition but women from low socioeconomic class were doing better practice with regard to visits and other care. Overall, women with the higher socioeconomic class were practicing better ( $P < 0.001$ , OR 2.47). Similarly, appropriate knowledge and attitude is vital in ensuring sustainable acceptance of antenatal services among the Orang Asli women. This study revealed that the respondents have inadequate knowledge regarding the importance of coming early for their first antenatal check-up. Their ignorance resulted in late antenatal booking where only 54.59% of the women came for their antenatal booking in the first trimester. This is lower as compared to findings in another rural settlement in Pahang state, where 63.6% of the Orang Asli women interviewed admitted going for their first antenatal check up in the first trimester<sup>19</sup>. However, the result is comparable to a review on antenatal care among indigenous group in Australia where the proportion of women in Australia's Aboriginal population who went for their first antenatal check up in the first trimester ranged between 34% and 49%<sup>20</sup>. There are few limitations of this study. Findings of the study can only be extrapolated on urban women who are attending antenatal services, and there is a possibility of recall bias among study participant.

### **Limitations of the study**

This cross-sectional study was conducted in a single community. It was also based on respondent's personal report on satisfaction. So, the results might not reflect the actual scenarios of the whole community.

## **VI. Conclusion And Recommendations**

Development of maternal death care services particularly antenatal is viewed as a vital component. Till now, a large proportion of (39.09%) women in Bangladesh has inadequate knowledge and have poorly practice ANC care. Also, they have less knowledge and attitude towards dietary and nutritional factors, danger signs of pregnancy, contraception, and personal habits during pregnancy. Detailed intercession program needs to be prearranged and conducted to advance their maternal health practices and ultimately improve the health status.

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